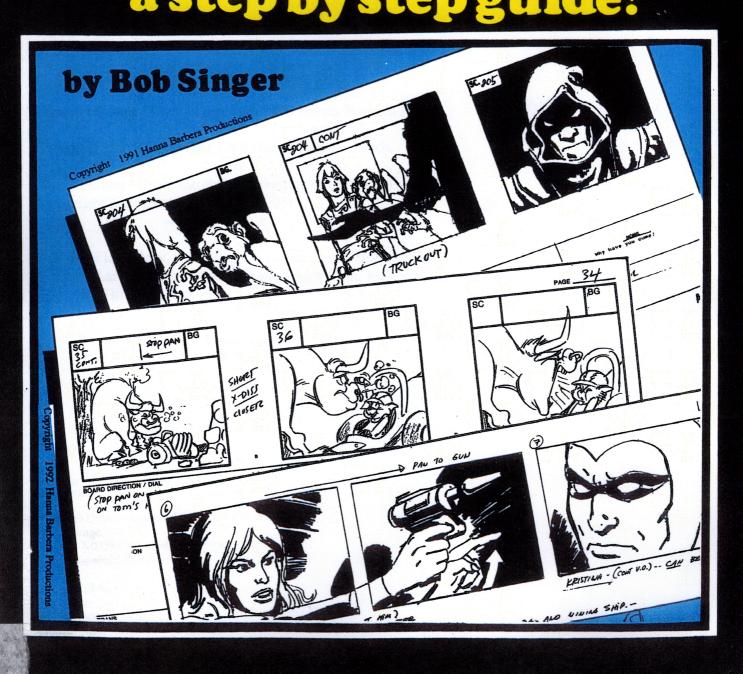
How to Draw Animation STATISTICATION a step by step guide!



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HOW TO DRAW ANIMATION STORYBOARDS by Bob Singer 1-949-837-0338 Fax 1-949-837-7908 e-mail: papabob3@earthlink.net

address mail to: Bob Singer 21171 Cancun Mission Viejo, Ca. 92692 **How to Draw Animation**

Storyboards

a step by step guide



By Bob Singer

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INTRODUCTION by Art Scott

Over the years the animation industry has had classes in animation, layout, background and character design, but little attention has been given to a very vital department that developed almost overnight, although the refinements have been gradually added over the last thirty-five years. That is "storyboarding". Now as never before, there needs to be a comprehensive gathering of important details of that department. To that end this book has been written.

Frequently when people describe the animation process, they will picture the story board as 'like a comic strip'. To the general public that explanation gives a satisfactory idea. However, in reality the only similarity between comic strips and story boards is that they are both graphic art, on paper within a series of rectangular panels. Of course each medium is telling a story or illustrating a joke or a gag. But the animation storyboard requires concern for a number of special techniques that are needed for producing a professional board.

The story board is in actuality a blue print of an animated cartoon. As in building a house the blue print contains all the information needed to begin construction and follow a plan through to completion. So, in a sense, in animation with the storyboard blueprint, the staff of artists and technicians are guided by the hundreds of sketches and text on the storyboard. Historically the story board cartoonist job has been a slow evolution., starting with gagmen working for a

director, to the sketch artist writing his own story in drawings. The artist would frequently have to sell his creation to the director or producer by talking the board frame by frame. Many disagreements and arguments ensued from time to time and many hard-worked- on stories would be totally rejected.

The production story time schedules by todays standards were more relaxed, to the extent that some artists would sneak in an afternoon nap hidden behind a leaning 4'x8' storyboard. Although more creative, the cartoonist of that era long ago had a less complex job.

In the TV cartoon world of today the story board artist has virtually no story imput on a show, other than to suggest a more practical way to present a gag or a story point. His role is very specific...that is, to create a graphic script based on the typewritten script. Over the years a number of cartoonists have either passed on or retired and the rush to take their places has brought forth a number of well meaning cartoonists who are doing boards that fall short of professional standards.

Many artists believe they can do good modern day story boards simply because they can draw well. That is usually a good strong prerequisite, however there is a great deal more to it than that. A number of fine story board artists from the old school of developing large paneled

boards found it difficult to adapt to the new concept. One top veteran artist returned a script stating he didn't know how to convert the type written information into a finished T.V. storyboard. He had been creating his own stories in rough detail without too much thought to production requirements. Other such experts who did make an effort to do a T.V. board found that many scenes needed to be redone even though at first glance the drawing was excellent. There was never any time given to instruct artists entering this new field with all the information needed to complete a good workingboard... bad scene cuts, poor dialogue postioning and confused staging, mixed graphic continuity, pans and trucks not indicated, following the dictates of the typewritten script too literally, and not re-designing a sequence to fit the parameters of practical animation. These errors seem to be mistakes that are too obvious to be made. But it's surprising to find that many working story board artists continue to have the same shortcomings. Because of the crush of production schedule, either the producer or director has to correct badly done boards with a lot of fast thumb-nail sketch revisions. There never seems to be time to have a storyboard training session. So the problems continue on in their haphazzard fashion. The story board is not only important to the studio production crew, but it needs to be sent to other interested people, network producers and standards and practice executives. So these graphic scripts take on additional importance and need to be done in a professional style

A well done board doesn't mean a beautiful graphic style, in fact Joe Barbera has often said, "The drawing itself is not that important, I'll settle for stick-figures as long as they tell the story and contain the production information.'

Usually a lot more than that is recommended to help give the board some emotional impact to the viewer, and to qualify the board as an understandable blue print. There have been a number of books written over the years about animation, but none have concentrated on the T.V. animation story board to the extent that author/cartoonist Bob Singer has done in this book. He is well qualified to put this instructional journal together, having worked in the animation industry in various creative departments along with story boarding. He has seen the developement of the production board up to its present position of increased importance when so much production is being followed through on a world wide scale.

Artists wanting to become storyboard directors will find the information in this book most valuable. For the first time a lot of word of mouth instruction has been researched and codified, so that anyone interested in becoming not just a sketch artist, but a professional story board director can follow the step by step instructions presented in the following pages.

Art Scott

Art Scott

HOW IT ALL BEGAN

THE EARLY YEARS OF ANIMATION

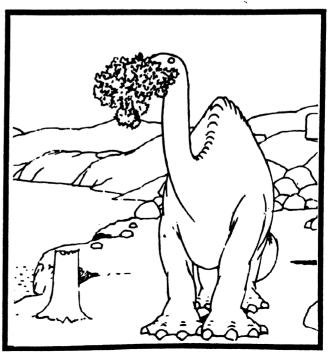
Just after the turn of the century, around 1906, the experimental work of Thomas A. Edison inspired J. Stewart Blackton and Emile Kohl to create the first crude animated cartoons. In turn, their efforts encouraged a well-known illustrator of the day, Winsor McKay to plunge into the medium. McKay advanced the art to new heights, culminating in the creation of the first cartoon character, Gertie the Dinosaur. These early pioneers helped to create a new art form that shared the silent screens of another recent invention: the motion picture.

Animation and live action moving pictures grew up together in the eary years of their development. While D.W. Griffith, Edwin S. Porter and B.W. Bitzer were cranking out films for the nickelodeons, Windsor McKay was creating his personal animated films single handedly, soon to be joined by J.R. Bray, Earl hurd and Raoul Barre, in creating the animation industry.

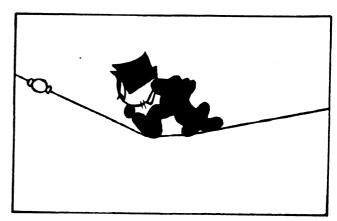
By 1913 the first animation studios were established to meet the increasing demands of exhibitors. Young artists flocked to New York, the center of the fledgling animation industry. More studios were formed and a flood of cartoons began to be produced by assembly lines of artists and technicians. Unhappily, these later efforts, though popular, lacked the quality, imaginative design and even the techniques of WinsorMckay.



From humorous phases of funny faces by J. Stewart blackton, 1900



Gertie The Dinosaur, by Winsor McKay, 1914.



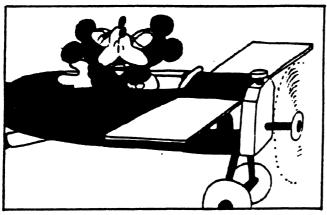
Felix the Cat ,by Otto Messmer from a 1926 short.

Over a decade would pass before Walt Disney arrived on the scene and breathed new life into cartoon shorts with Mickey Mouse and the development of the sound cartoon.

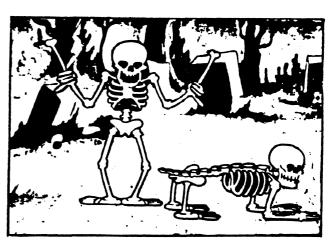
These early films were loosely constructed around a general storyline and many an animator was expected to write the gags for his section of the film as well as animate it. Films tended to be a series of "spotgags" strung together-entertaining, to be sure, but lacking a cohesive storyline.



John R. Bray's Colonel Heeza Liar in Africa (1913)



Plane Crazy was "Walt Disney's" first Animated cartoon although Steamboat willy was released ahead of it in 1928



"The Skelton Dance"by Walt Disney 1929

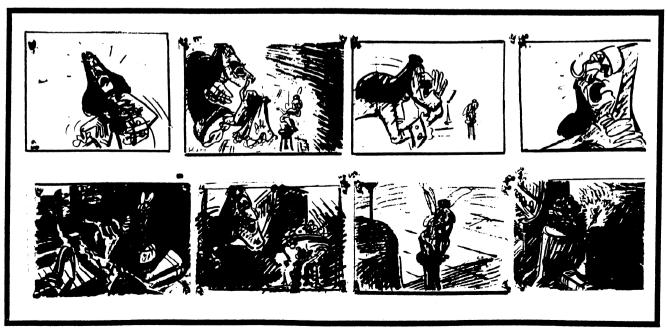
DEVELOPMENT OF THE STORYBOARD

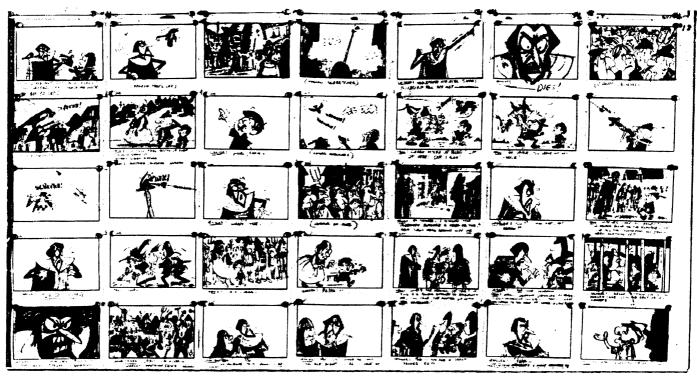
At the Disney studios the need for stronger story control was recognized and the first modern-day storyboards were developed, although an earlier form was developed in use at the Max Fleisher studio a year earlier, in 1930. Instead of each animator sketching out his own section, the whole picture was written and drawn in a series of small pictures that were thumbtacked on large boards for mobility.



an early disney animator's sketch before the days of storymen.

an example of a pin-up board





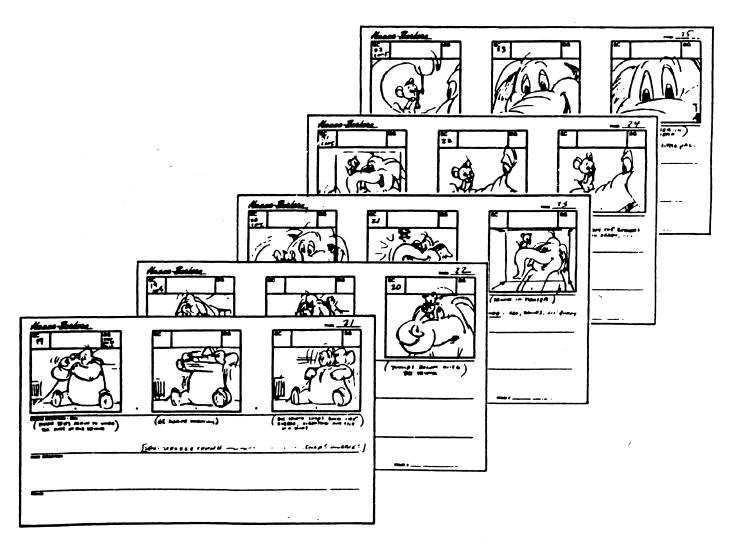
Mr. Magoo Copyright 1963 UPA pictures inc.

This technique proved very successful and became a standard practice throughout the industry. With the advent of television cartoons new techniques of film-making were required to meet the fast deadlines and constricted budgets of the TV networks. Production was streamlined, the assembly line was perfected and the various stages of production were separated into more specific areas of work.

Now the story board was drawn by a single artist, working from a script he was given. Once it was approved by the producer and the network the script became the "bible" and served as a guide for all the artists, painters and technicians down the production line. It was considered "locked-in" and became very difficult to change.

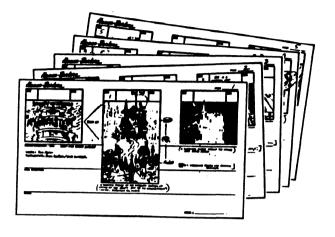
THE STORYBOARD AND HOW IT'S USED

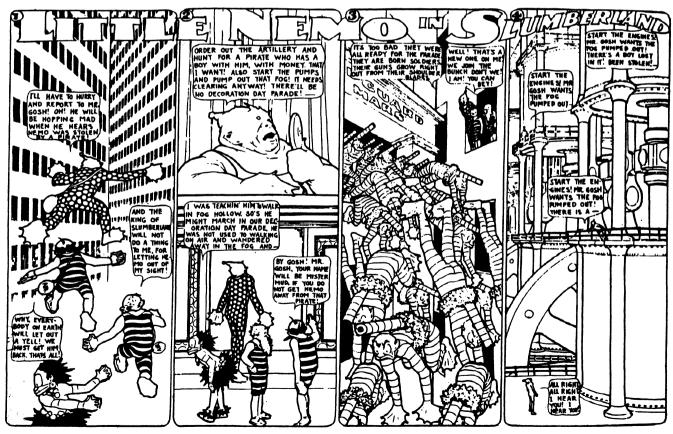
Our concern here is for the preparation of the modern-day animated film storyboard, whether it is for a theatrical feature, television cartoon, commercial or educational cartoon.



What is a Storyboard?

An animation story board consists of a series of drawings depicting the sequence of scenes to be used in the production of an animated film. Unlike motion picture production in which more footage is shot than is actually used in order to facilitate final editing, animation production must be tightly controlled because of the high cost of making artwork and the need of working toward a pre-determined length. The story board is used to pre-plan a picture in order to obtain the best possible mix of scene sequence and at the same time control costs. In fact, many liveaction motion pictures utilize this device. It is common practice now to story board television commercials, industrial and educational liveaction films, especially when a combination of live-action, animation and stock footage is required.

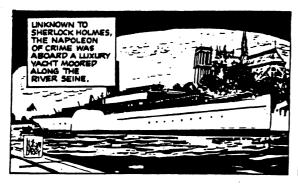




A portion of a Comic Strip by Winsor Mckay (circa 1908) with the dialogue removed from these panels, you would have a storyboard utilizing vertical pans, a full shot and a medium close-up

At first glance, the storyboard appears to be a descendant of the comic strip. Indeed, famous comic strip characters have found their way into animated cartoons since the very beginning. However, the animated storyboard has more of a direct relationship to the live-action techniques found in the art of motion pictures. The goals of both animation and the motion picture are same: to retain eye interest and attention while telling a story in an artful manner.

An example of a comic strip, by Bill Barry







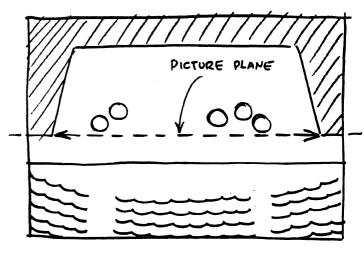




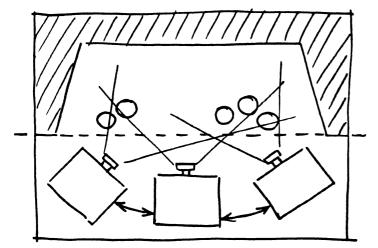
THE ART OF THE MOTION PICTURE

The art of the motion picture becomes apparent when you compare an audience watching a play to the same audience seeing a film. The play requires the audience to see it from only one angle and at a fixed distance. Usally the story is unfolded in real time, although there will be a passage of time between scenes or acts.

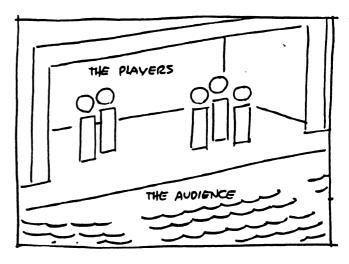
On the other hand, the motion-picture will move the viewer around the" stage"in order to present the best angle and will subject him to rapid changes of location and time and will carry him along side a vehicle or turn him into one the characters.



A diagram of an audience watching a stageplay



A down-shot view. Note that the players are separate from the audience by an invisible line called the *picture plane*.



Thus the viewer is drawn into the story and becomes more involved, being able to see close-up the expessions of the actors or share the dangers they face. The images are highly controlled as opposed to the "play" audience who are watching at a safe distance as observers.











A sequence of scenes from a live-action movie. There is an esblishing shot to set up the relationship of the actors followed by a mix of one and two shots to retain audience interest and emphasize the dialogue.

D. W. GRIFFITH

Many of the early movies were filmed like stage plays with a fixed camera that recorded the action as it unfolded. Then in 1903 Edwin S. Porter completed the "Great Train Robbery," a landmark film that attempted to tell an original story for the first time. It is notable for its editing and the movement of action towards and away from the camera.

In 1908 at Biograph Sudios young stage actor D.W. Griffith was offered a chance to direct. Griffith was dissatisfied with the way movies had been made. In the course of making one film after another, he invented new ways to shoot scenes and discovered many others by chance. (For instance, he stumbled upon the "fade-out" when the iris on his camera malfunctioned). In under a year Griffith had put together a variety of shots that became the basis for what we now call the "language of film".

In the following pages we will discuss the types of scenes, camera moves and continuity passed on to us from these early pioneers, techniques that are used in both live-action and animation.





Scenes from early D. W. Griffith films.



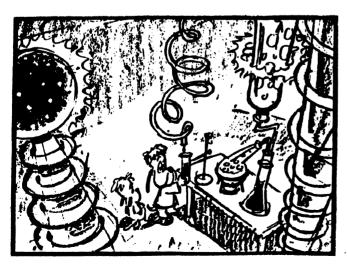
D. W. Griffith confers with his Cameraman.

SCENES

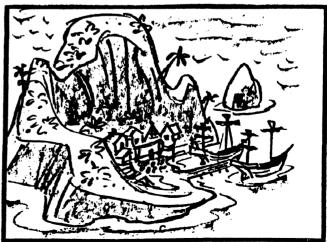
The Long Shot

One of the most basic of scenes is the LONG SHOT, or establishing shot. Here the audience is introduced to the location, or "set". The figures are incidental to the background. Many films will use this as scene one. Whenever there is a change of location to the story you will need to return to another LONG SHOT to show the audience the new setting in which the action will take place. The figures will invariably be small in size to emhasize the location.





In this long shot from Hanna Barbera, Droopy uses an elaborate set up to make a spot of tea.

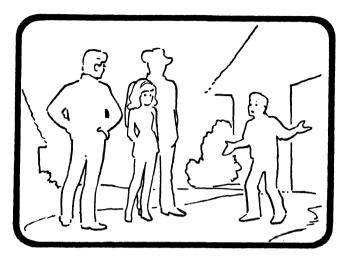


Many establishing shots are bird's eye views used to set up the Geography for the scenes following.

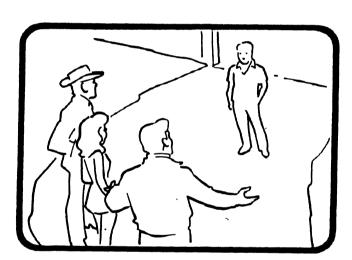
THE FULL SHOT

In the FULL SHOT the characters are shown full figure and the background is of lesser importance. This type of scene shows the audience where the characters are in relation to each other.

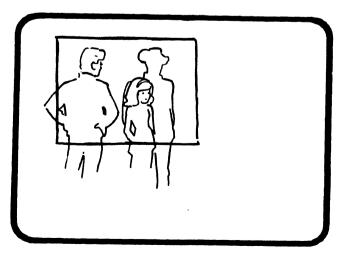
When the characters change position it may be necessary to return to a FULL-SHOT in order to re-orient the audience. If the FULL-SHOT is used several times it can be varied by changing the angle to a down-shot or more of an eye-level view to retain viewer interest.



A Full shot



A down shot variation of the Full shot



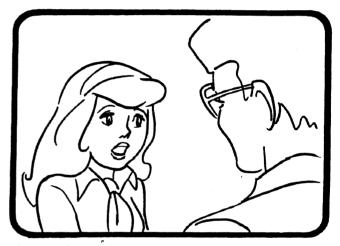
An intercut of a previous shot

MEDIUM SHOT

The MEDIUM SHOT is a closer shot, used mainly when two or three characters are relating to each other. Generally, it is a waist-up shot. A variation of this is the angled or over-the-shoulder shot, which is used to emphasize one character who is speaking or reacting to the other.



Although this is a medium shot, it is in a sense, an establishing shot as it sets up the following shots.



An over-the shoulder shot emphasizes one character while adding depth, increasing eye interest.



The reverse angle



An intercut to a closer shot further increases the use of the same animation resulting in a savings in layout time and allows for re-use of the background.

THE CLOSE SHOT

The CLOSE UP is a single-head shot used to capture subtle expression when a person is speaking or reacting or when you want to direct the audience's attention to a prop.



A CLOSE-UP

A variation of this shot is the EXTREME CLOSEUP, used to emphasize facial expressions, mainly the eyes. It is used to show more extreme emotion such as anger, helplessness or evil intent and is used to produce a stronger reaction from the viewer.



AN EXTREME CLOSE-UP



A down shot will emhpasize the short stature of a character



An upshot lends authority, evoking feelings of awe or fear.

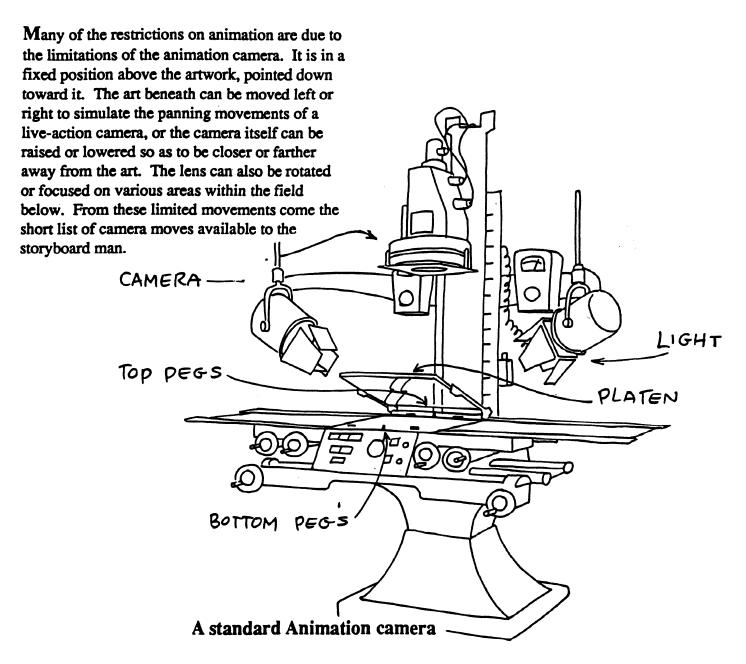


A fast truck in will lend shock value to a scene as well as enhance a fast paced story.



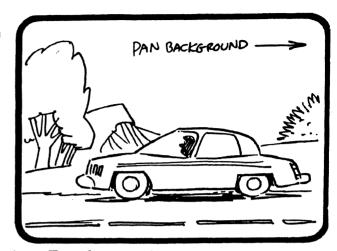
A slow truck-in will evoke feeling of empathy from the viewers and contributes to a slow paced scene.

CAMERA MOVES



PAN SHOTS

A PAN SHOT is used when the camera seems to be moving along with the action, such as traveling with a vehicle, or when the attention of the audience is directed from one area of a background to another, in which case it is called a PAN-OVER.



A car Traveling on a Pan

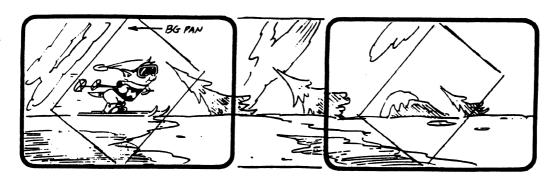


A pan-over shot needs to indicate the start and stop positions

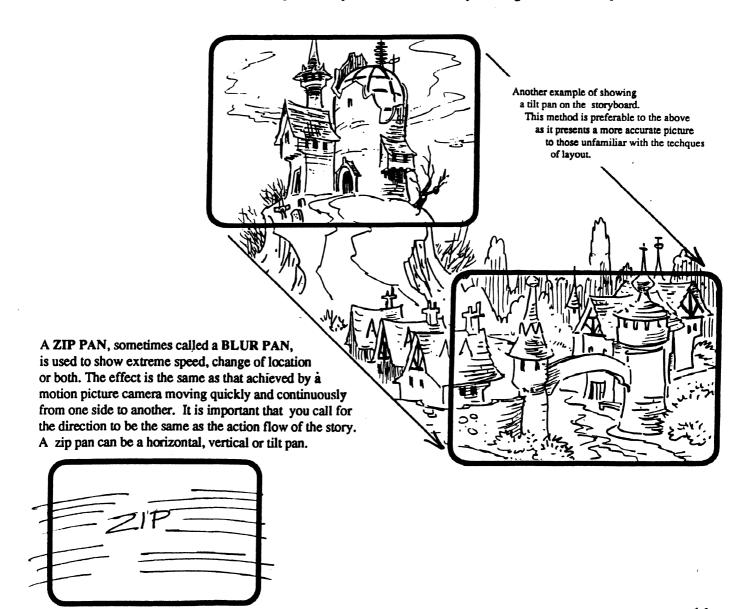


A PAN OVER in a close-up will be more dramatic than the same action in a FULL SHOT.

TILT PAN



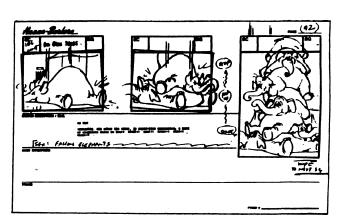
In a tilt pan the camera is rotated to give the illusion that it is moving up or down at and angle. Be sure to show the direction of the pan. In the above example the tilt pan field is indicated by drawing the field on the panels.



VERTICAL TILT PAN



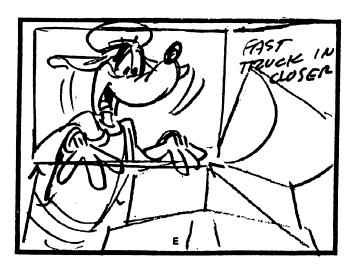
A VERTICAL TILT PAN shows background movement straight up or down when you want to show animation seeming to rise or fall.



This is how a vertical tilt can be drawn on a stroyboard.

A TRUCK-IN is a good device for focusing the audience's attention toward an object, character, or part of the background.

The speed of the truck will change its meaning. For instance, a fast TRUCK-IN may create shock or surprise, whereas a very slow TRUCK-IN will give added meaning or pathos.



TRANSITIONS

In the theatre on a live stage, passage of time is accomplished by lowering and raising the curtain or by dimming the lights briefly. A change of locale requires changing the sets between acts or using a revolving stage to introduce a new set.

In animation, transitions are more related to motion-picture technique. For example, most storyboards will use a FADE-IN at the beginning of the story as is common practice in many live-action films.

Combined with a FADE-OUT, the FADE-IN can be used as a transition between scenes to give the feeling of slow time passing and perhaps a change of locale.

The CROSS-DISSOLVE is also used for this purpose and can be of long or short duration. A WIPE is used as a change of locale and can be either a left-to-right screen wipe or right-to-left, usually following the action of the preceding or following scene.

The RIPPLE-DISSOLVE is a good device for introducing a scene from the past or the future. Of course, the most commonly used device is the simple CUT. One would think that the CUT between scenes shows no passage of time.

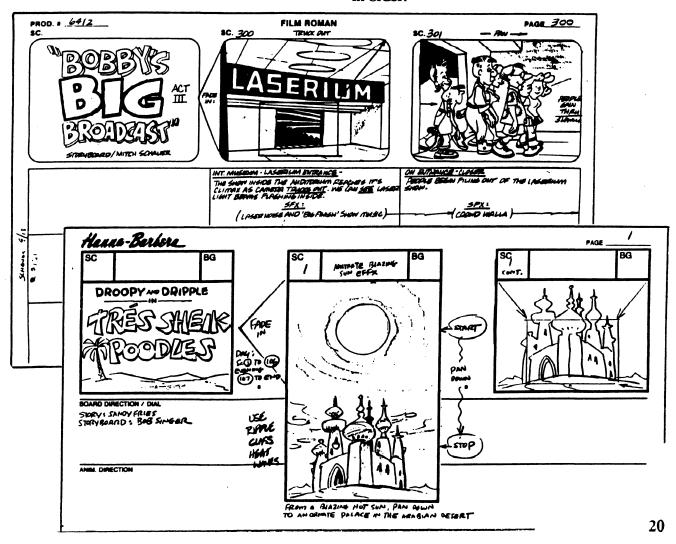
Actually, there is implied action between scenes in certain cases. For instance, if a character walks out of a scene completely and we cut to that same character in an action, such as chopping wood, we have to assume that while we were still viewing the previous scene our character has walked into the next scene, picked up an ax and began to chop before the cut especially if the previous sc was held for a beat or two before cutting to the new scene.

In more recent films, stories are told with much more compressed time in order to move the plot along faster. Years ago, if a character left a penthouse to return to the street below, transition scenes would be required showing him opening and closing doors, descending stairs or elevators, crossing lobbies and exiting the building to hail a cab. Later, directors began to use CROSS-DISSOLVES (we can shorten it to read X-DISS) or FADE-IN/FADE-OUT as a device for getting to the street more quickly. Today, even time-honored conventions are being eliminated. Our character can do his lines in the penthouse and we can immediately cut to the Note that camera instructions street below as he comes out of the lobby. can be inserted between panels However, this device is jarring and should be on your storyboard used sparingly in animation, if used at all. or a panel can be used for a camera instruction. CROSS FADE IN! DISS **FADE OUT!**

CONTINUITY

We have discussed beginning most storyboards with a LONG-SHOT to show the audience where the story is taking place. It may be a down shot of a busy corner downtown in a city or a quiet farm scene or a pan of a strange planet. There are no absolute rules that govern the

sequence of the various scenes we have at our disposal. Even with this first shot you have the choice of a slow TRUCK IN and a X-DISS to the next scene, or you could use a PAN-SHOT or a combination of these two devices. Perhaps a vertical pan up or down or at a diagonal will be in order.

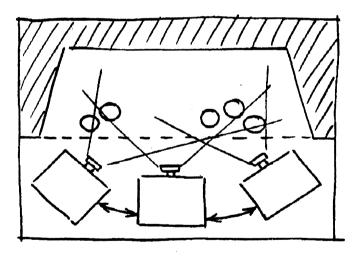


STAGING

You'll remember our discussion of an audience watching a stage play. The characters are only seen from the front of the stage. That is, the audience cannot physically go backstage and see them from the rear. There is an invisible barrier that separates the front of the cast from the area behind them called a PICTURE PLANE. The live-action camera can shoot the scene from the front, the left front and the right front, but does not cross the picture plane and shoot from the rear because the audience will lose its orientation and be confused.

This same principle applies to animation story-boarding. Once you've set up your establishing shot you can move your camera around your stage and shoot several scenes, staying on the same side of the picture plane. But, if a character moves to another part of your stage, you'll need a new ESTABLISHING SHOT to reorient the audience. Then you can continue telling your story in LONG SHOT, CLOSE-UP and MEDIUM SHOT.

Of course, there will be times when a rear shot will be needed for the sake of the plot. You can accomplish this by the use of a transition shot that shows the camera clearly moving to a new location.



Looking down on a satge. The camera can shoot any angle in front of the picture plane.

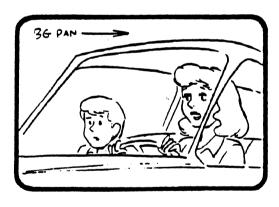
For instance, if you're in a car traveling one direction and you want to shoot from the reverse angle,



you'll need a transition shot, such as this front view.



That will enable you to change angles without confusing the audience.



Most scripts will suggest which shots to use to tell the story. But it is really the decision of the storyboard artist to take the word and interpret it, converting it from the written script into a visually interesting story. A storyboard shows the reader where we are, who is in the scene, who's talking, who's listening, where the action takes us and, if we change locations, where we are now. We must also consider keeping the audience visually interested. Eight close-ups in a row, for instance, may lead to a disinterested audience. Use a good mix of scenes to move the storyline along. It would be enlightening to view a well-produced film with the sound turned off in order to watch the flow of scenes without the distraction of sound.









These four scenes are heavy on dialogue and light on action. The artist has changed the angle from cut to cut in order to retain viewer eye interest.









Using too many close-ups in a row will lead to a loss of audience interest.

There is an area, however, where these two techniques will overlap. It's called the **point-of-view** shot. This will occur when you show a close-up of a character reacting strongly to a situation with shock or surprise at what they are witnessing. Instinctively the audience will expect the very next shot to be what the character is seeing. In this way the audience is setup to experience the same feelings as the character in the story. This is still an **objective camera** shot, but is very audience-involving.



MR. GATES: OH, MY LORD! ... LOOK AT THAT!



Naturally, there are always exceptions to these general rules. Leave it to Bugs Bunny or Daffy Duck to step out of the story line and make a fast wisecrack to the audience, looking directly at the screen.



BUGS: (TO AUDIENCE)
THAT'S WHAT HE THINKS!

COMPOSTION

One of the first decisions an artist makes in composing a poiture is: where is the horizon line? The answer will determine the framework within which all the other steps will be taken in drawing a picture.

The horizon is compositionally very important in most straight-on full-shots, which will comprise the bulk of your scenes in a story board. The horizon will be placed below the center line and it's location is determined generally by the style of the show. For instance, with your average cute-cartooney show, such as YOGI-BEAR, the Chipmunks or Bugs Bunny, the horizon or floor line would be placed higher than in a realistic super hero series such as Batman or Ghost-Busters.

Copyright c 1972 Hanna Barbera Productions



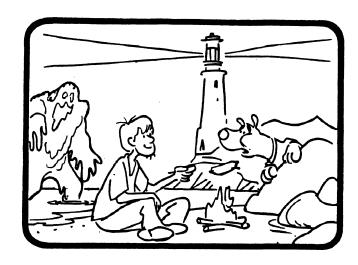
a cute cartooney show has a higher horizon line

SuperFriends Copyright 1973 Hanna-Barbera Prod.

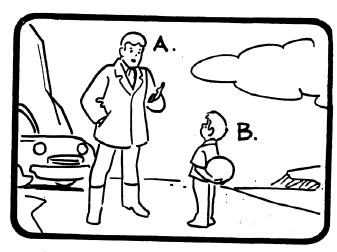


a super-hero show composes more dramatically with a low horizon

The kind of show that falls in-between these two types would be, let's say, a Scooby Dootype show, often referred to as comedy-adventure, where the characters are drawn in a semi-realistic fashion. Here the horizon will be a bit higher than in the super-hero show to accommodate the style.



Quite often the angle at which a scene is shown will subtley control the viewer's perception. Let's say we have a scene in which a tall adult is speaking with a child. Their relative positions are shown in an ESTABLISHING or FULL-SHOT.







In a succeeding CLOSE SHOT, a slight up shot (low horizon line) will indicate that character A is taller or older than the viewer and will tend to add to the authority or power of the person portrayed.

In the next shot a slight down-shot on character B will show a person who is diminished: in size, who is perhaps younger and inferior.

IMPACT AND EMOTION

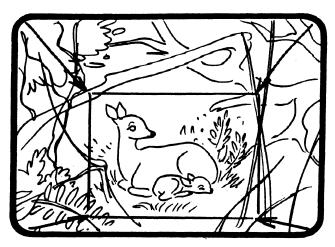
You can increase the emotional content of your scene by the proper use of fielding and trucks. We've already discussed how many films will end in a slow TRUCK BACK to disengage the audience at the end of the story.



A very slow truck back will also help generate a feeling of lonliness or isolation when combined with a quiet composition of strong vertical and horizontal lines.

Conversely, fast trucks in or out will increase exitement in keeping with the tempo of the action, as will a series of quick cuts.

Longer scenes with extended CROSS-DIS-SOLVES connecting them will help action that is slow or stately and indicate that time is passing gently. A wild ride will become more powerful with the use of rotating TRUCKS and TILTED PANS. Just as an artist learns to use diagonal forms to create action in a still drawing, diagonal tilts will do the same for animation.



On the other hand, the slow truck-in can be used to increase warmth or provide added meaning to a scene or lend importance to it.

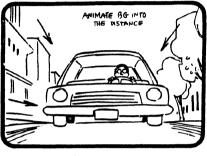
VEHICLES IN MOTION

The limits of animation as compared to liveaction become very apparent when you desire to show a vehicle traveling along a road. The live camera can position itself wherever it is needed alongside or in the car and the background will recede into the distance as it does in real life. In animation, to get the same illusion you would have to animate the background and, indeed, this is a technique that can be used, although at quite a sacrifice.

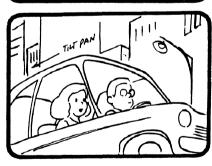
But there are several other ways to show a vehicle in motion. The most basic is having a car on a repeat pan background. On a setup like this the car can also GAIN IN on the pan or GAIN OUT, or can slowly PAN through the scene.

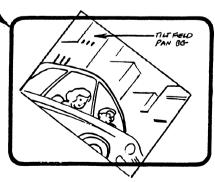
You can put the car on a **TILT PAN**. Indicate it like this:

or another way.

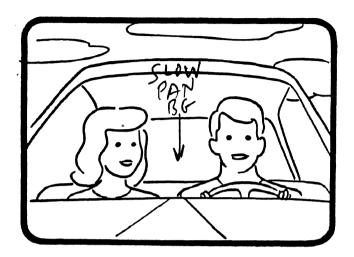




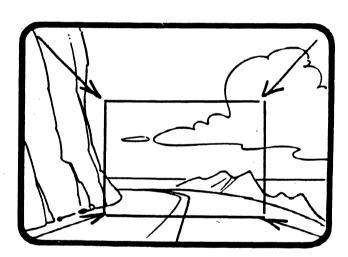




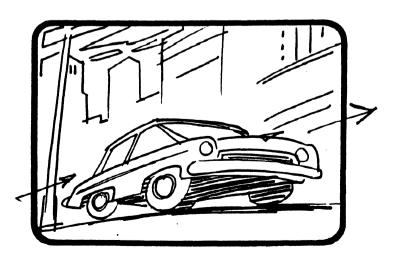
When you want to shoot the scene from the front it isn't possible to use a horizontal pan. Instead, call for a 90° tilt vertical scene and call for a slow BG pan even though the car is supposed to be moving fast. Since you are in an UP SHOT the slowly moving background will work better.



This shot can be combined with its opposite angle to show what the car's occupants are seeing.



Another use of an animating background is this low angle three-quarter shot. In this case, the car can either be a held cel or can zoom through the scene animating up larger as it goes through.

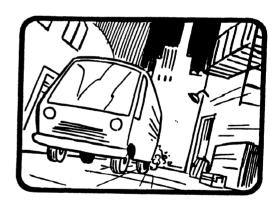


A scene that is very expensive to produce looks like this: in this case the background would have to animate toward the camera. Another way it could be accomplished is by the use of a TRUCK-IN on the background only and shooting the driver and the car separatedly, using masks to combine the two shots afterwards. In a regular television series shooting scenes that require special handling like this is discouraged because of the cost and lab work involved.



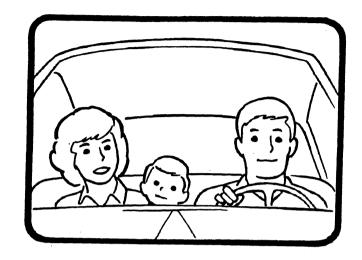


Another effective way to shoot a vehicle moving through a scene in an exciting manner is to use a tilted layout and animate the car toward and just past the camera.





When you need to show dialogue among passengers in a vehicle you can set up your scene with a front view shot. it is possible to use a flat card background and use a slight camera shake to simulate motion, expecially if not much of the background is showing.



Your succeeding shot of the characters in closeup talking can be accomplished without violating the picture plane by shooting at angles.



You'll notice how the backgrounds will pan in different directions. The audience will accept this because of the setup shot of the front angle.



12

PROCEDURE

There are several types of animation productions from theatrical features, commercials, educational and industrial films, television shorts and specials to the short personal film.

Our focus here will be on creating a storyboard for a segment of a television series being produced in one of the larger animation studios. First, read your script carefully to fully understand the storyline. On a second reading block it out into sequences. Note the time of day and Make a mental note of which way the action is flowing.

Next, acquire the main character models from the producer. Some new incidental characters will appear in your particular story. The writer may have provided a character list describing them in detail, perhaps not.

Droopy and Dripple GO WITH THE FLOW

CAST

DROOPY: He's completely bundled up in a huge down parka mittins, boots, scarf, hat and face mask.

DRIPPLE: He's dressed just like his Poppa (NOTE TO STORYBOARD:

Once Droopy and Dripple pull down their face masks at the begining of the episode, we can see their faces-without any masks..throughout the rest of the episode.)

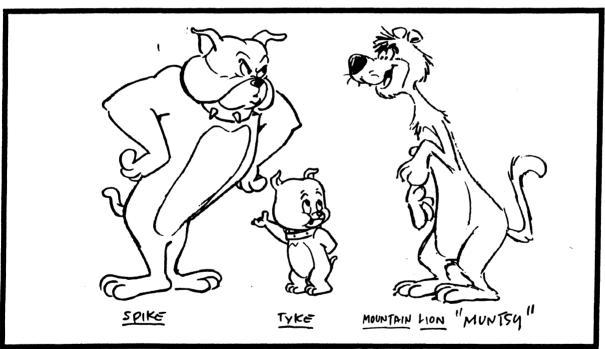
MCWOLF-He's also dressed in heavy-duty cold weather gear: Parka, boots, gloves.

ANNOUNCER-A guy who has incicles hanging off his blue nose, off his microphone, and off various other various appendages. Has an ever-present, big and toothy grin.

DROOPY'S HUSKY- A small, cute, adorable littlefellow.

POLAR BEAR- He comes already dressed for the cold.

The producer may assign a character designer to make you some sketches, but in all probability he'll ask you to come up with some ideas yourself. In that case, make a rough sketch of the more important ones and have a conference with the producer to get his input. It would be worth several hours designing your incidental models as you won't be hung up waiting for someone else to supply them to you.



Spike and Tyke c 1992 Hanna Barbera productions

In this SPIKE & TYKE story we will be using as an example, there is only one main incidental character-Muntsy, a scruffy mountain lion. Among the first considerations is his size compared to Spike and Tyke. He can be designed and left in a rough stage, just clean enough for you to use in your story board. Muntsy uses a change of costume, so it would be a good idea to design this, too, to show the producer for approval.



Develop your character in a rough form and design the costumes changes. Later a designer will convert your sketches into final model sheets.

As you begin your storyboard you can plan to rough-out the whole board and then go back and "clean it up", or you can finish as you go.

Personally, I've found that roughing out one sequence at a time, then going back and finishing it works best for me. Some artists like to work in blue pencil as a roughing color, others work lightly in black, plannning to go back later and finish the drawings in tight pencil or ink.

Remember that you are drawing for a xerox machine that will make multiple copies of your board for everyone down the production line. For this reason a lot of shading or rendering makes it difficult to read besides adding to the length of time you spend on it.

Some storyboard artists prefer to do their rough planning in another way, drawing right on the script page with thumbnail sketches to plan their continuity.

From this step they would go right to a finish on their storyboard paper. This is a good shorthand method of scene-planning, but it's best suited to experienced storyboard artists.

2-5H01

TYKE ON A HIKE

FADE IN:

EXT. - WIDE OPEN COUNTRY SIDE - DAY

CAMERA PANS across the beautiful vast country side. Passinnng mountains, tall trees, a lake, wild flowers and green meadows. PAN STOPS at reaching a clearing surrounded by shrubs and tress. After a BEAT, CAMERA TRUCKS IN CLOSER.

MED SHOT - PANS with SPIKE and TYKE walking along a path through the woods. Tyke is wearing a knapsack on his back, a camera hangs off the knapsack by it's stir

TYKE

Gee dad, thanks loads for taking me on this hike so I can take picture for my school project

SPIKE

Sure son, the great outdoors is a terrific place to study naturalistic nature!!!



Tyke turns and looks up OS at Spike.

TYKE

Not many other fathers would take the time to bring their kid out for a hike.

CLOSER - ON SPIKE - PANNING

Spike LOOKS TOWARD CAMERA.

SPIKE

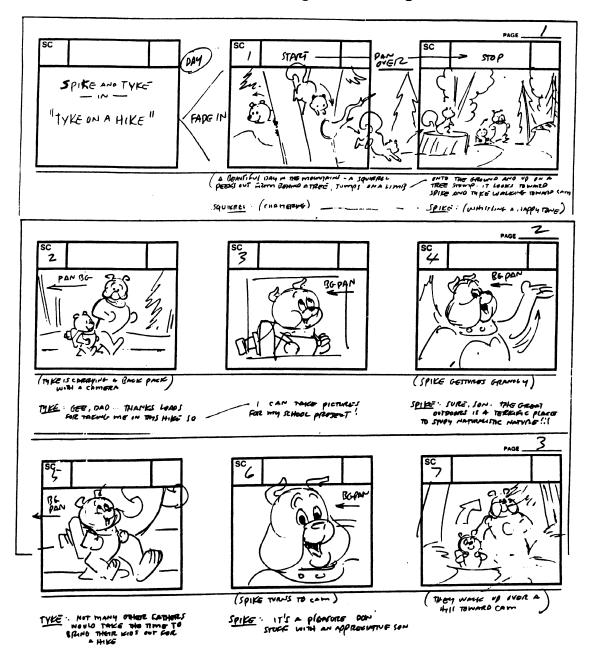
It's a pleasure doin' stuff with an appreciative son!







Roughing out a sequence such as shown on these pages will enable you to experiment and be creative without locking in your ideas too soon. Be sure to put in your scene descriptions, dialogue and sound effects as you go so that you can play your sequence over again to check if the board is working as planned, leaving room for changes or additions.



Once you are satisfied with your roughed out sequence go ahead and clean it up and begin roughing out the next sequence. AND DUCKS BEHIND A TREE, SPIKE : (WHISTEING A HAPPY TUNE) PAGE. SQURPEL : (CHATTERING) AME

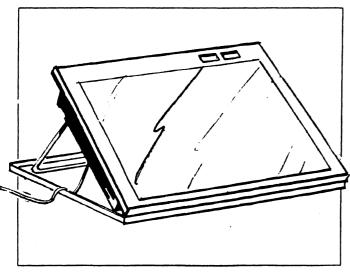
37

13

YOUR WORK AREA & MATERIALS

Storyboarding requires intense concentration for extended periods of time. Just as the script writer or any other artist for that matter, needs a quiet corner in which to work, the storyboard artist should plan to work in an area that is free of distraction and interruption. The roughing out stage is the most creative part of the work. On the other hand, the clean-up stage can be accomplished in a more relaxed atmosphere with people bustling about and music playing. Try to work in a room where you can close the door on the world when you need to.

As far as your materials are concened, the most important tool you'll need is a light board on a slant. These are supplied by the studio. If you are planning to work out of your home, one of these can be purchased at an art supply store or built inexpensively.



PENCILS

You'll need a supply of medium soft pencils such as a mars lumograph 100 B or Berol drafting 314. also a light blue that is xerox-proof.

STORYBOARD PAPER

can either be 3 panels to the page or six panels. It is pre-printed and supplied by the studio.

A TAPE DISPENSER

holding a roll of narrow white tape

ERASERS

both pink pearl and kneaded rubber erasers or some other eraser that will not mar the paper surface

PENS

If you prefer to work in pen instead of pencil for the final board.

A PAIR OF SCISSORS

are needed for replacing panels. some board men xerox the script pages down and cut out the scene description and dialogue to be pasted down.

GLUE STICK OR SPRAY MOUNT

to mount replacement panels.

DRAWING PAPER

for model sketches and notes.

14

THE DO'S AND DON'T OF STORYBOARD

When doing your storyboard don't draw your characters too small. In general, scenes should be drawn so that the audience gets as close to the action as is consistent with the type scene it is. Of course, in an establishing shot the animation is usually subordinate to the background or location, but you don't want the audience to feel too far away and out of the story.

Remember that your storyboard, although used by all departments, is communicating your thoughts directly to the layout man first, and then to the animator. A well thought-out scene will help the layout man translate the story into interesting compositions. Make enough drawings to show the animator what the complete action should be. Don't simply rely on the description beneath each panel- show it!

Since your storyboard has a deadline and needs to take its proper place in the production line, you'll need to strike a balance between having it be too perfectly clear or too sketchy. For the sake of time draw your figures clearly and with spirit. The expressions should be correct on all the characters. Note changes in the time of day and if there is a change of costume.

The backgrounds in your storyboard need not be too detailed as long as they communicate the proper environment. Sometimes it will be necessary to do some reference gathering or costume research. The time spent in preparation will-make your storyboard believable and will give a good kickoff to the layout man or animator.

Don't be a slave to the script. You're a visual artist and have to translate the written work into pictures. Don't be hesitant to question or suggest. You have room to be innovative without making wholesale changes. You are free to correct spelling, grammar, and even to suggest re-arranging sequences, enhancing gags with little bits of business or adding dialogue, but always with the consent of the producer, who is finally responsible for your work.

As far as materials are concerned, a storyboard can be completed in pencil or in ink. Naturally, an inked-in board over a light blue rough will reproduce very well. A pencil board will have to be drawn boldly so that the subtleties of design will not be lost in xeroxing. Special care should be taken in lettering instruction and dialogue. If your board requires shading or rendering choose a technique that can be duplicated without loss. Certain xerox machines are equipped to reproduce tones with dot patterns that will xerox easily. Of course, your storyboard can be photographed, but this can be costly and time-consuming.

It is possible to work on a flat surface such as a desk. But it is preferable to work on a slant board setup. Actually, a light-board would be the best of all. Choose a soft pencil that allows you to work both in a sketchy fashion and to do a tight cleanup. I would suggest a Mars 2B or a Berol 314. As for erasers, a pink pearl and rubber eraser will both be helpful. A glue-stick or spray-mount will be needed to correct and

paste-down panels. Use the spray-mount out in the open air only, as the mist will get onto all surfaces nearby, including your lungs. Keep a supply of correction fluid handy. Get both types. One will work on pencil or ink the other is useful on xerox only.

The studio will usually supply you with preprinted storyboard paper, or you can make your own master and xerox it repeatedly as needed. You'll also have need for a good pair of scissors. Make sure you have enough table top area to hold all the materials around you-script, storyboard paper, supplies, model sheets, reference material, and a place to assemble your board as it is completed.

Storyboarding is one of the most challenging of all the areas in animation, but it can also be the most rewarding. The difference between a good film and a mediocre one will depend in great measure upon the effort and imagination the storyboarder brings to it. A good script that is brought to life by a well thought out and lively storyboard will inspire all those artists whose hands it passes through. And that, ultimately, benefits us all.

15

STORYBOARDING THE FEATURE CARTOON

In a previous chapter we traced the evolution of the early storyboard and how it came to be developed as a system in which individual drawings were push-pinned onto bulletin boards, enabling the completed boards to be viewed in it's entirety and worked on during the story conference. The completed boards were then photographed and copies passed around to all the crew.

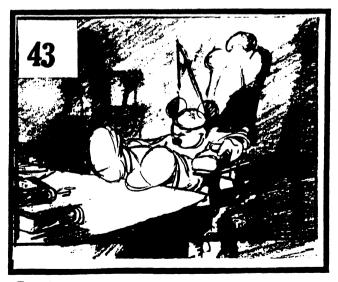
Later, cartoon shorts made for television abandoned this method for the more convenient six or eight panel storyboard paper that could be preprinted and reproduced on a Xerox machine in great numbers. This became necessary procedure to meet television short deadlines and constricted budgets.

However, most animated features continued to use the old-fashioned laborious pinup system devised over seventy years ago. Of course, some recent features have been produced with television's techniques and assembly-line methods, but this merely resulted in stretched-out TV-looking features that in most cases didn't do well on the large-screen format. The old tried and true pinup method still enabled producers to turn out well crafted and thought-out storyboards.

The feature length storyboard will be larger in size than the small panels used for television boards. Some of the panels will be rendered in

color. The action will be more fully described, the characters closer to the model and the backgrounds fully realized.

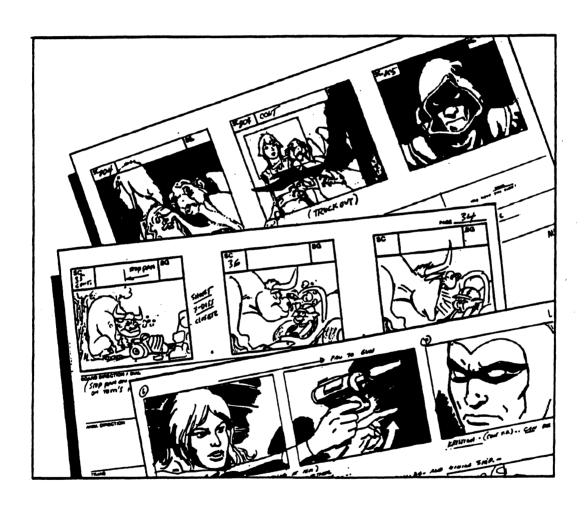
After the board is completed it will be photographed on film as a "storyreel" with running footage and using timing similar to the final production. The dialogue, music and sound tracks will be added, creating a rough form of the production. Soon, pencil tests will be shot and substituted for the storyboard panels. Later, full color scenes will be inserted as they are completed and slowly the production takes a final form.



Fantasia Copyright 1940 Walt Disney Prod.

Sample Production Boards

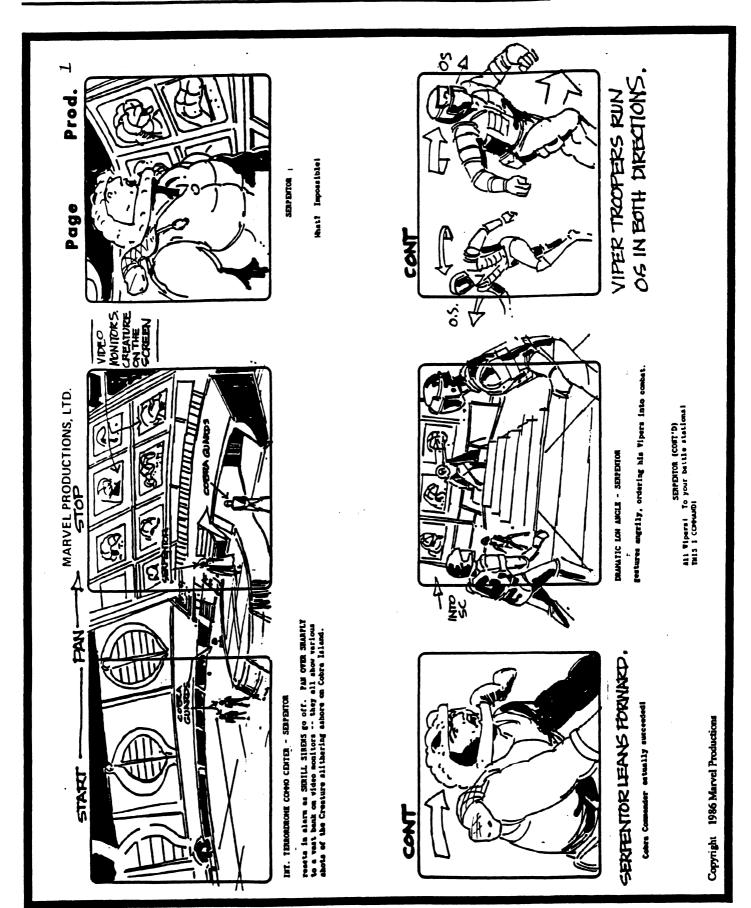
SECTION 2



List of Storyboard Artists

Bill Barry Floro Dery Bob Dranko Larry Huston Bob Singer
Mitch Schauer
Alex Toth
Moebius
Will Meugniot

PRODUCTION BOARD BY... Bill Barry



PRODUCTION BOARD BY... Bill Barry

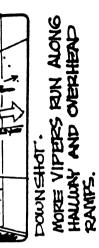


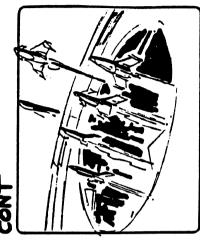
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Prod.

VIPERS UP PROMISTATAUNY AND INTO CAMERA.

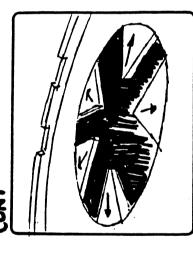
A SENIES OF QUICK CUTS - THROUGHOUT THE TERRORDROME





HOLD A BEAT... THEN HIREBUS ROAR SKYLUARD!

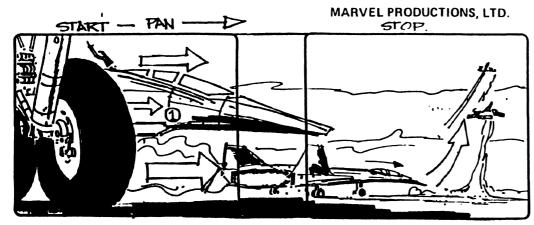




SECTION OF ROOF SPLITS
OPEN
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MAT. THE MOOF OF THE TEMBORDROME GRINDING open as dozens of Firebats MROOSM out as high apped.

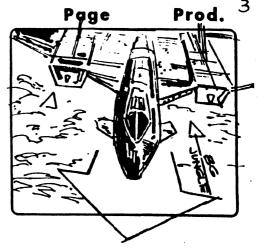
Copyright 1986 Marvel Prods



A BIDDEM COBRA AIRFIELD - MICHT RAVENS

RUNGLE to life and ROLL down the airfield, picking up speed.

ONE RAVEN ROUS INTO PRAME AS ANOTHER RAVEN ROUS INTO RUNWAY AS A THIRD ONE ROARS INTO THE NIGHT SKY.

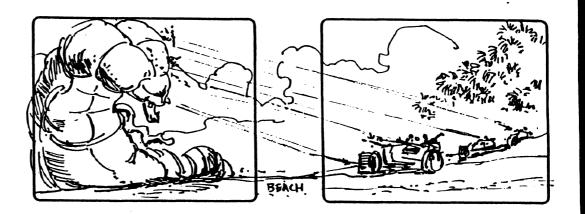


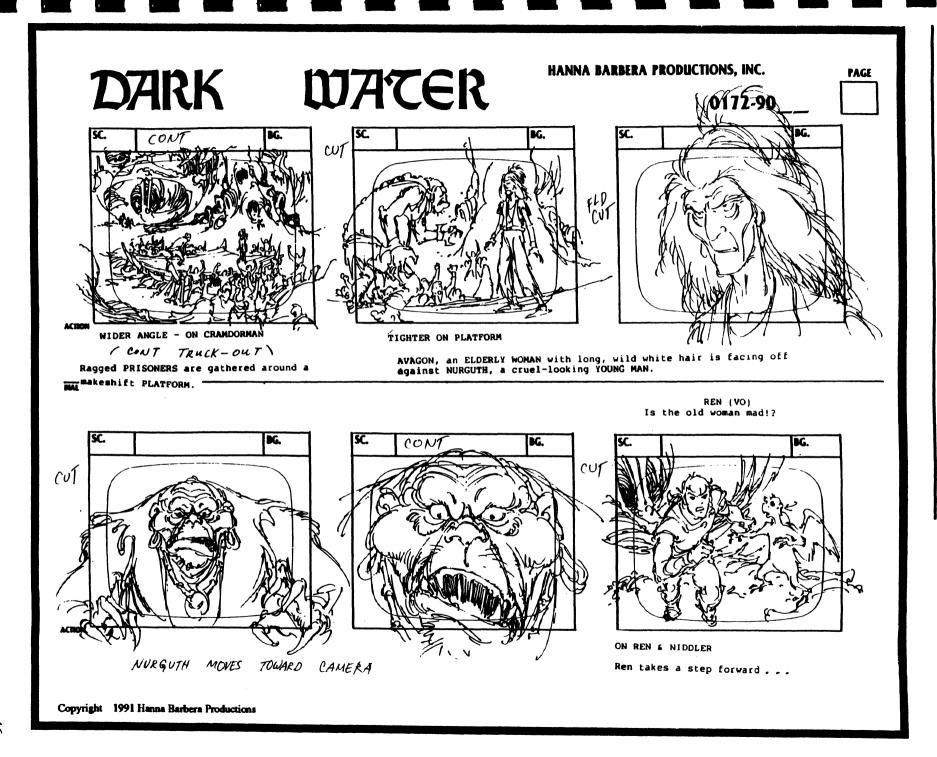
BG RUSHES BY AS RAVEN FLYS INTO CAMERA.

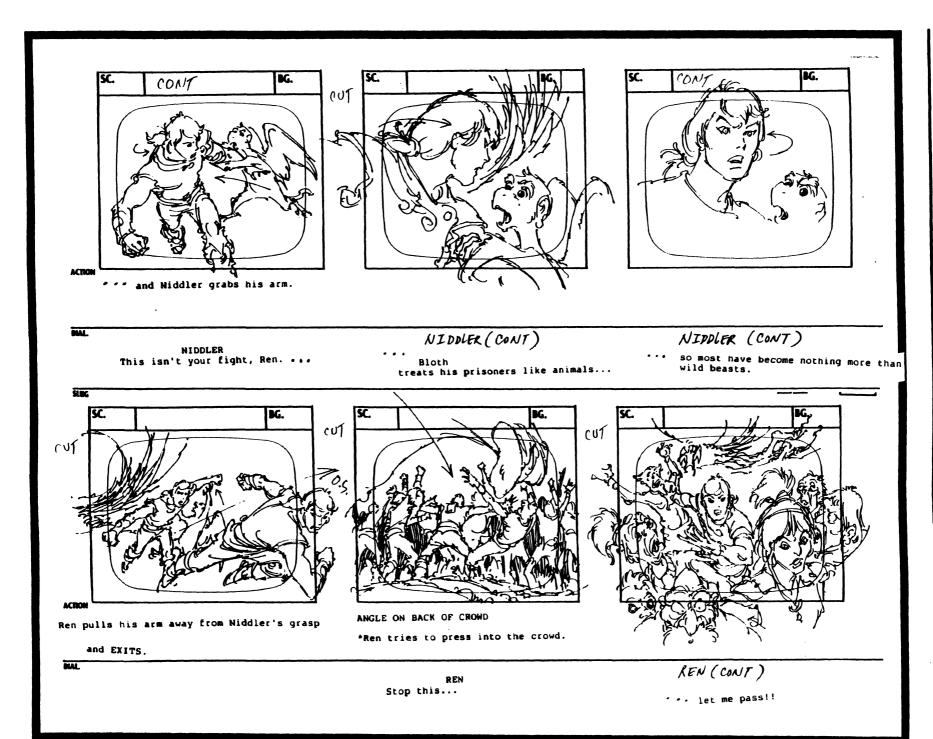


THE CREATURE

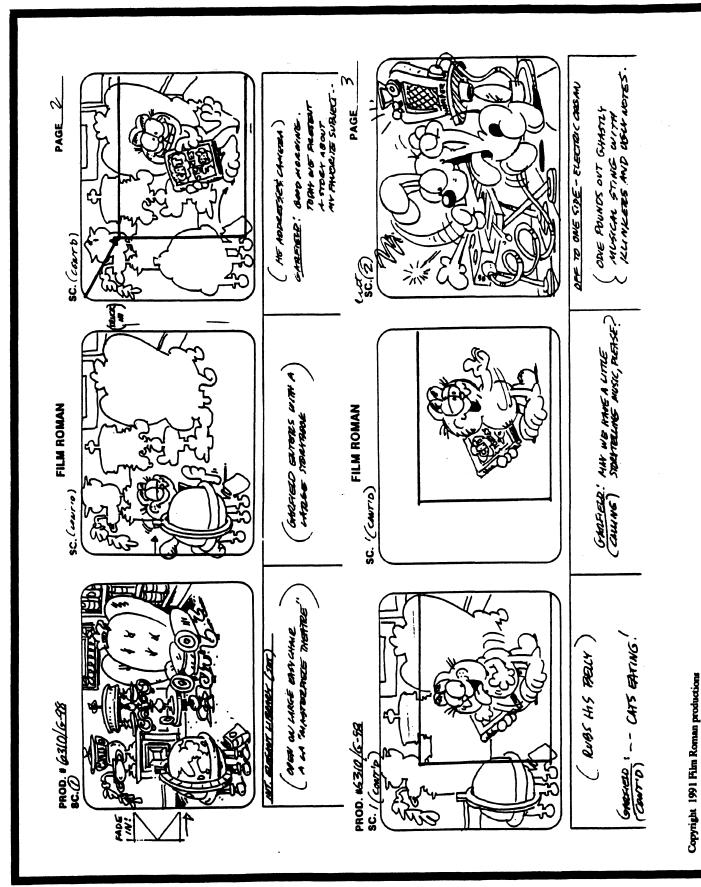
lurks along the coestline of Cobra Island, looking fopr a place to come ashore. Various laser batteries ZAP at it, scoring direct hits but not affecting it.



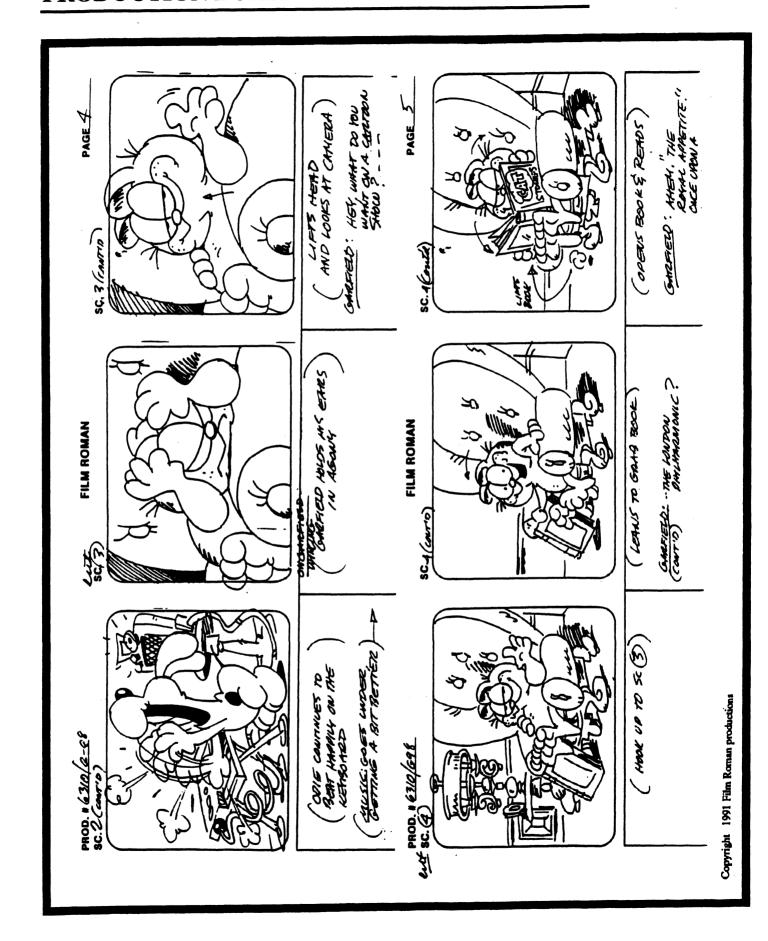




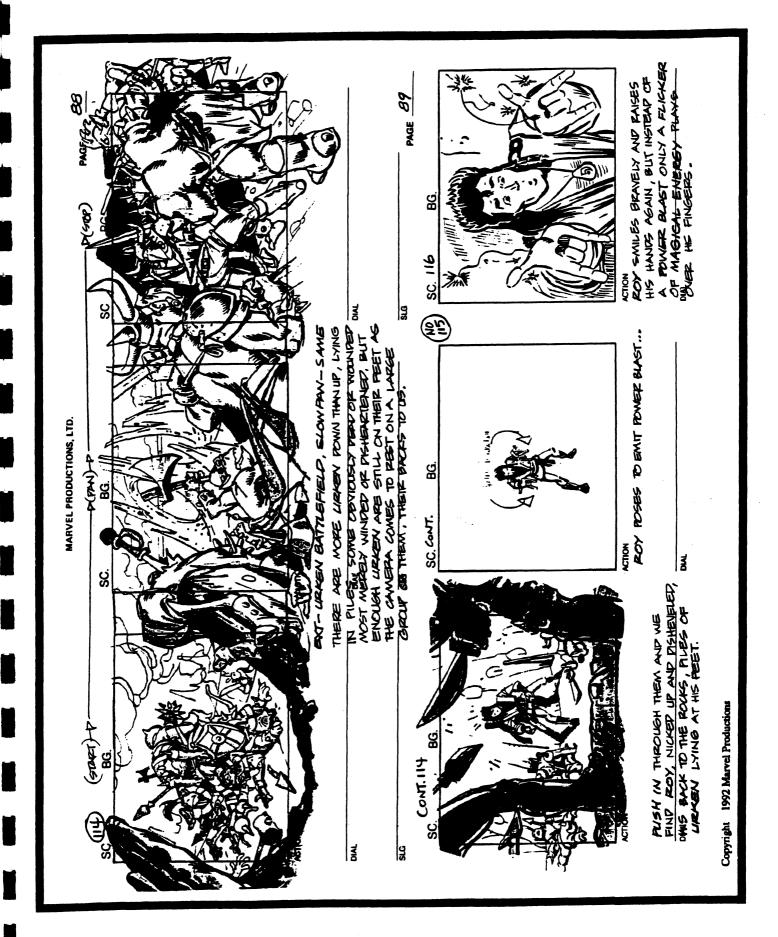
PRODUCTION BOARD BY... Bob Dranko



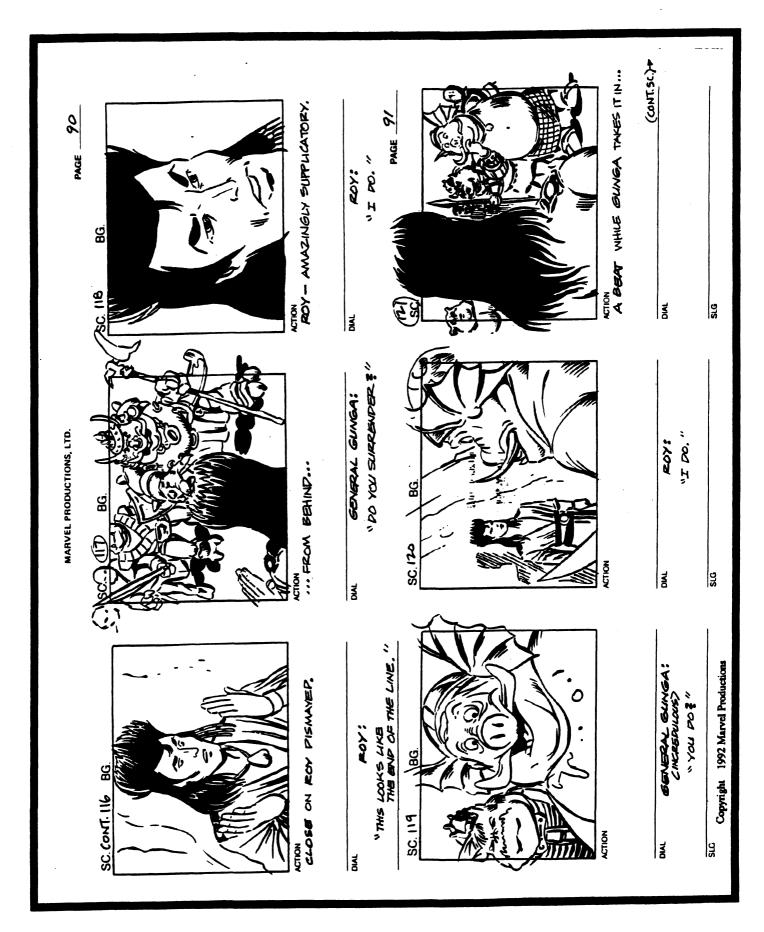
PRODUCTION BOARD BY... Bob Dranko



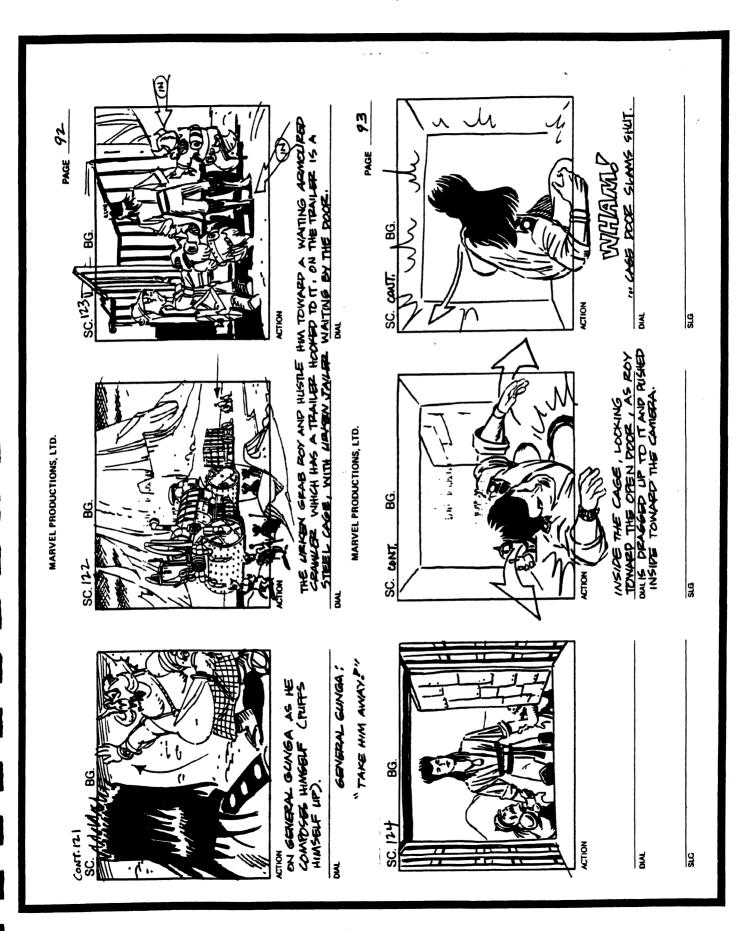
PRODUCTION BOARD BY... Larry Huston



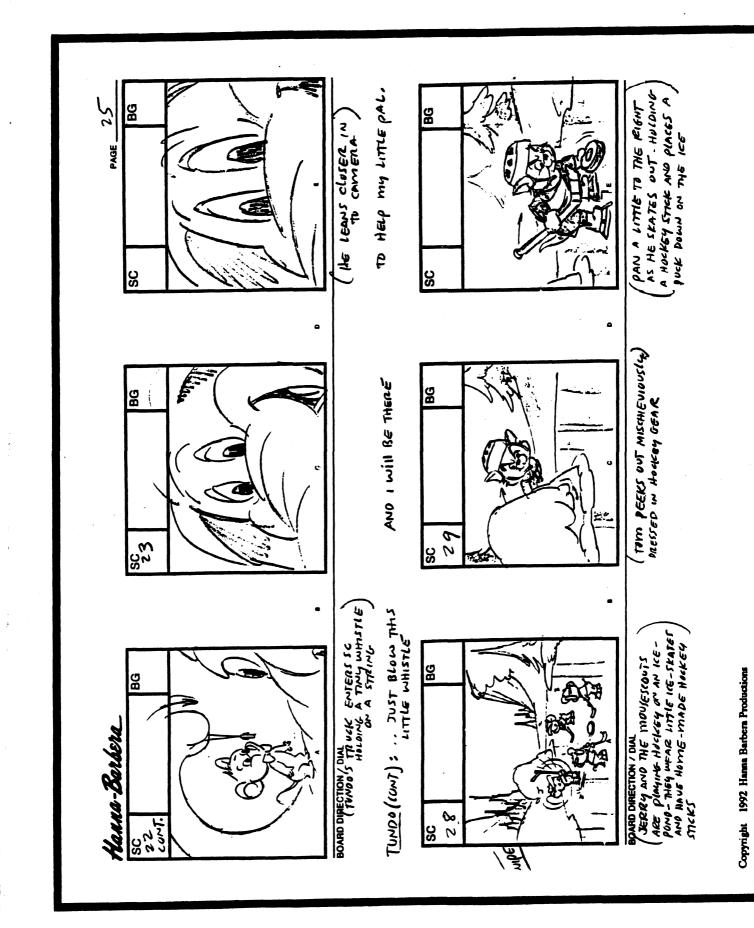
PRODUCTION BOARD BY... Larry Huston



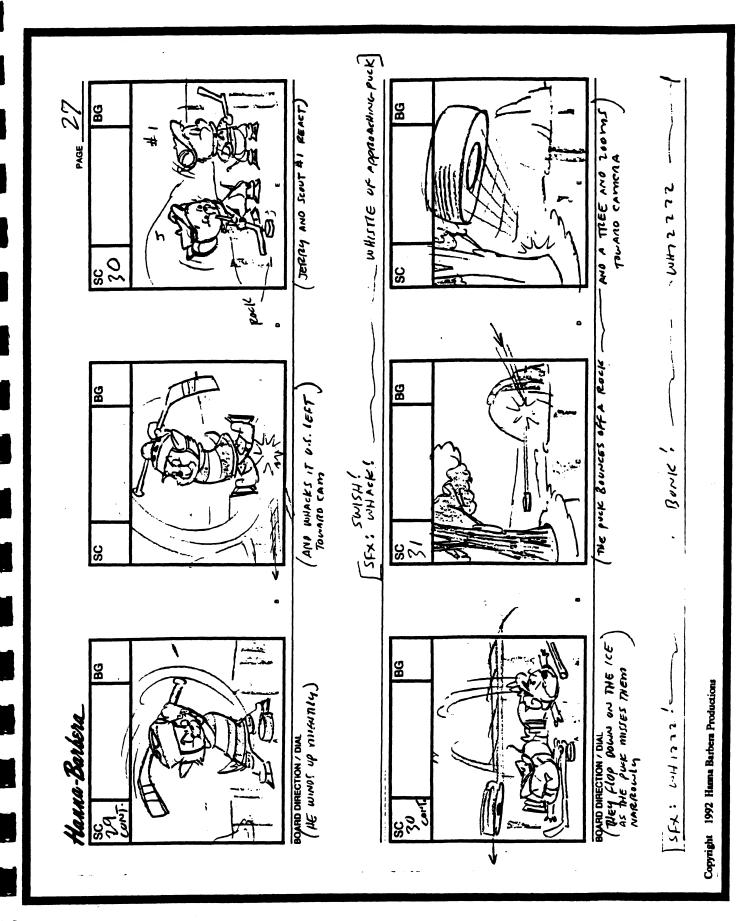
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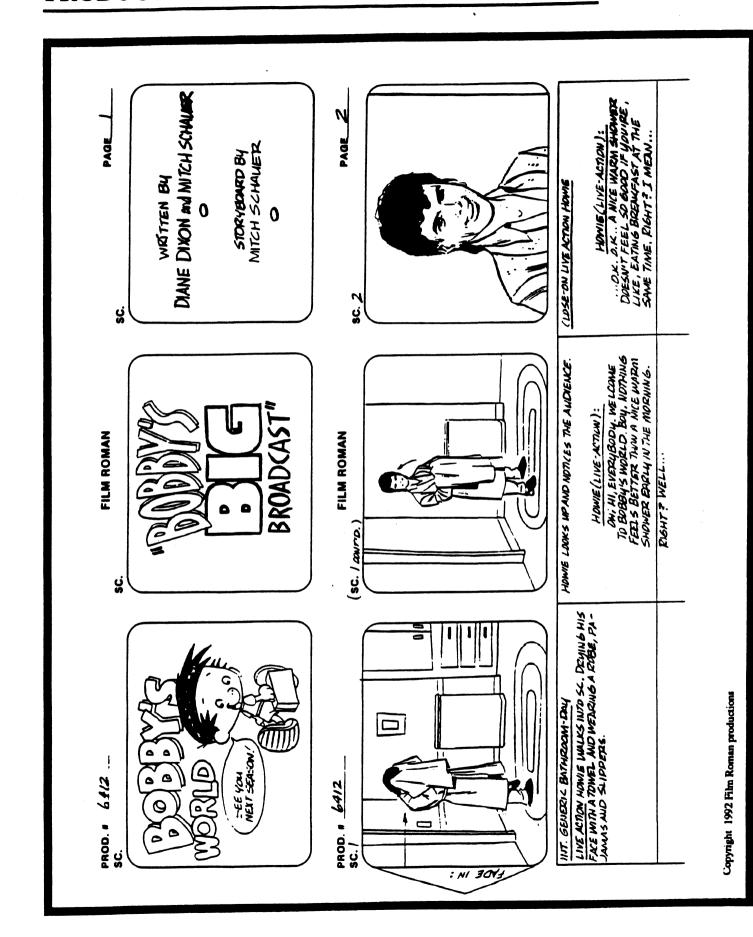
PRODUCTION BOARD BY... Bob Singer



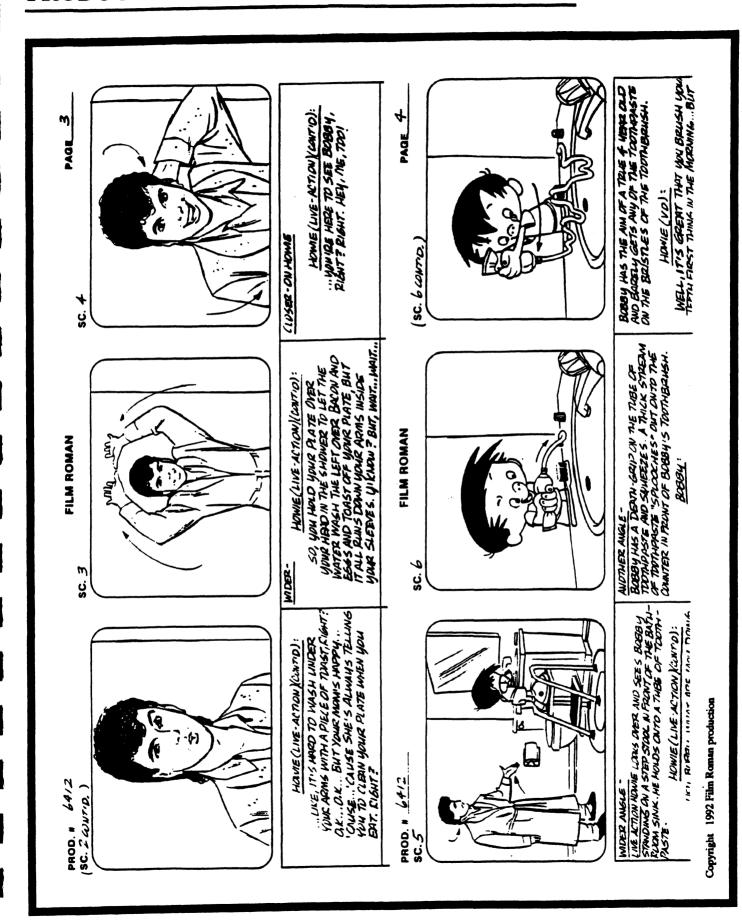
PRODUCTION BOARD BY... Bob Singer

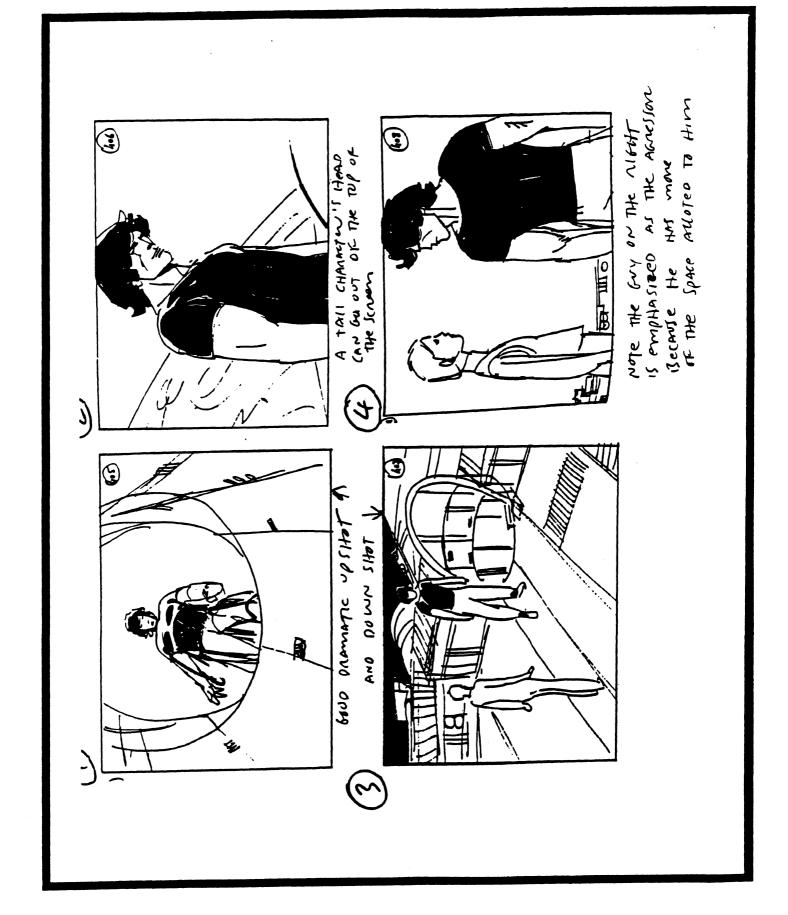


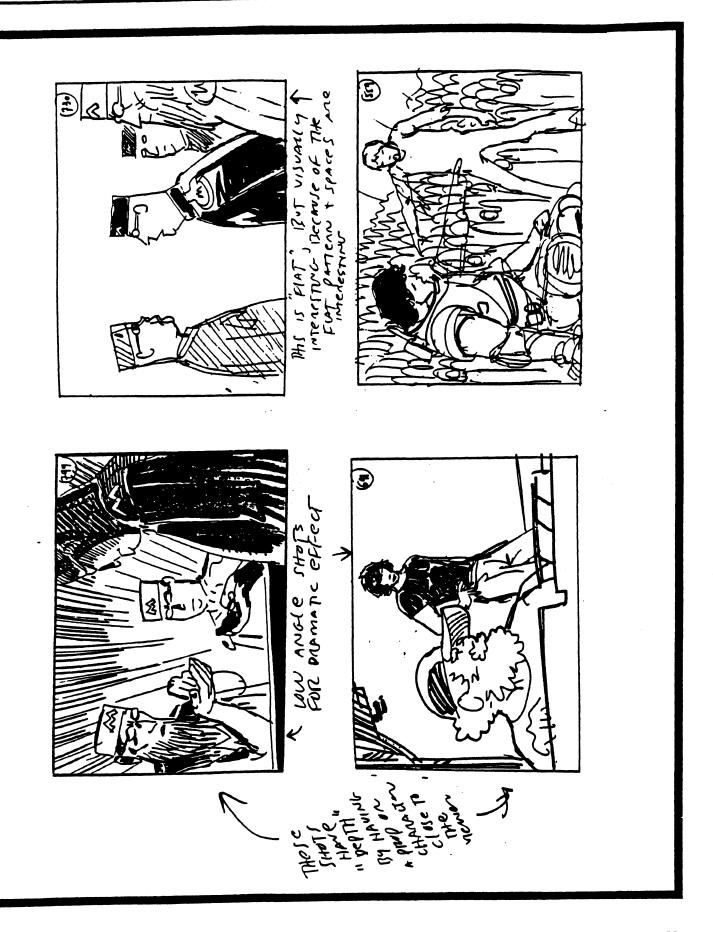
PRODUCTION BOARD BY ... Mitch Schauer



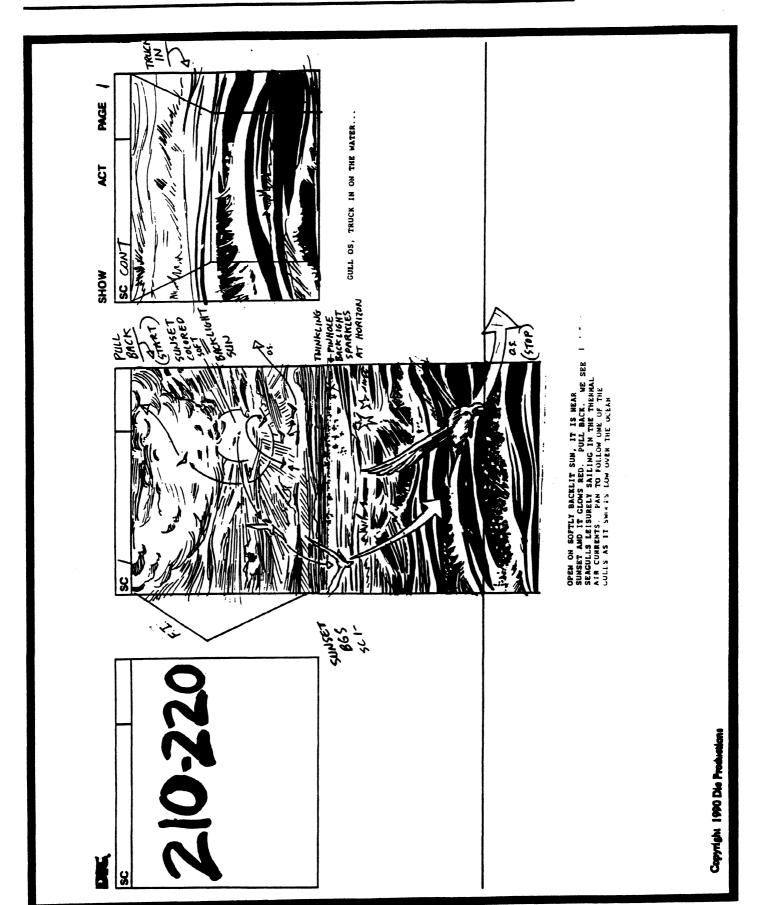
PRODUCTION BOARD BY... Mitch Schauer

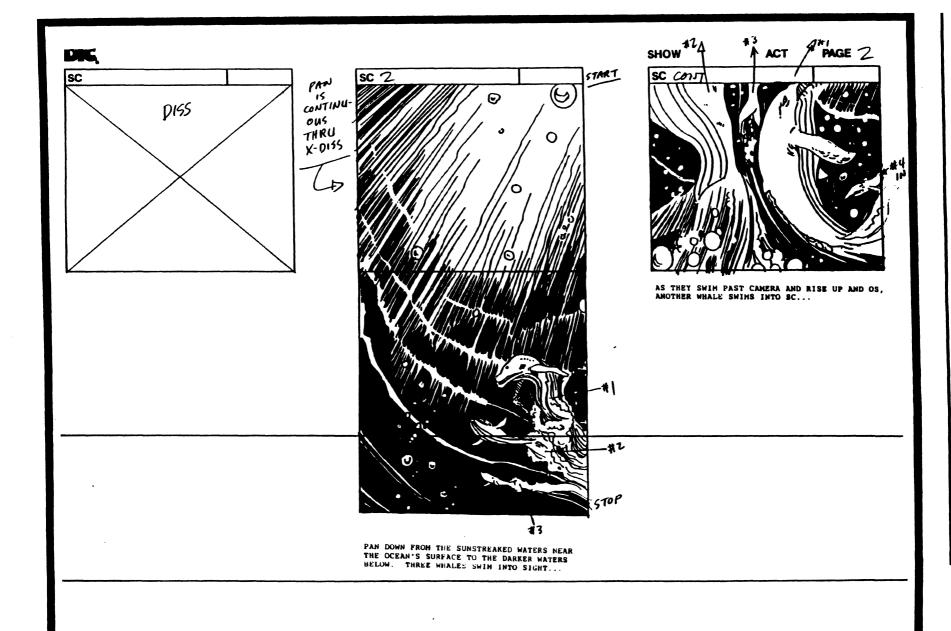


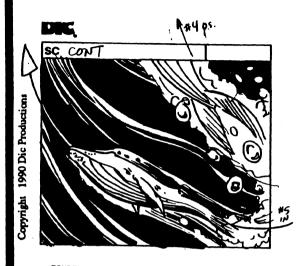




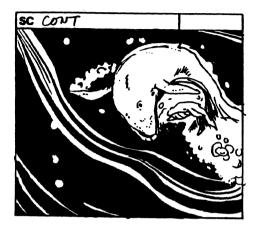
PRODUCTION BOARD BY... Will Meugniot



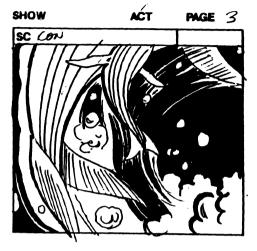




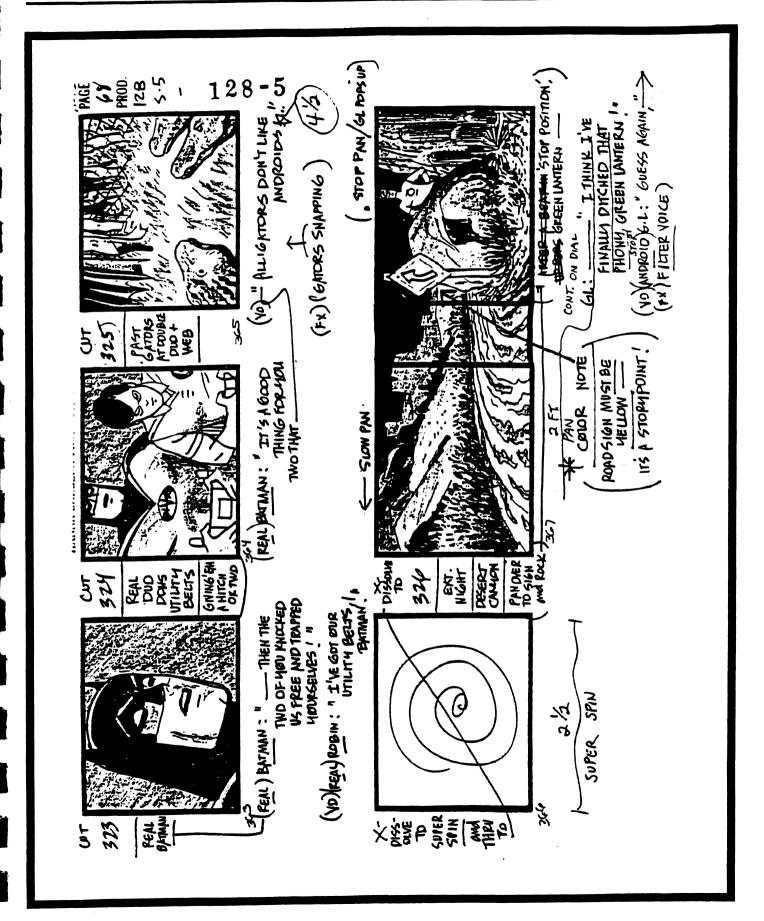
FOURTH WHALE UP AND OS AS A FIFTH WHALE SWIMS INTO AND THROUGH SC...

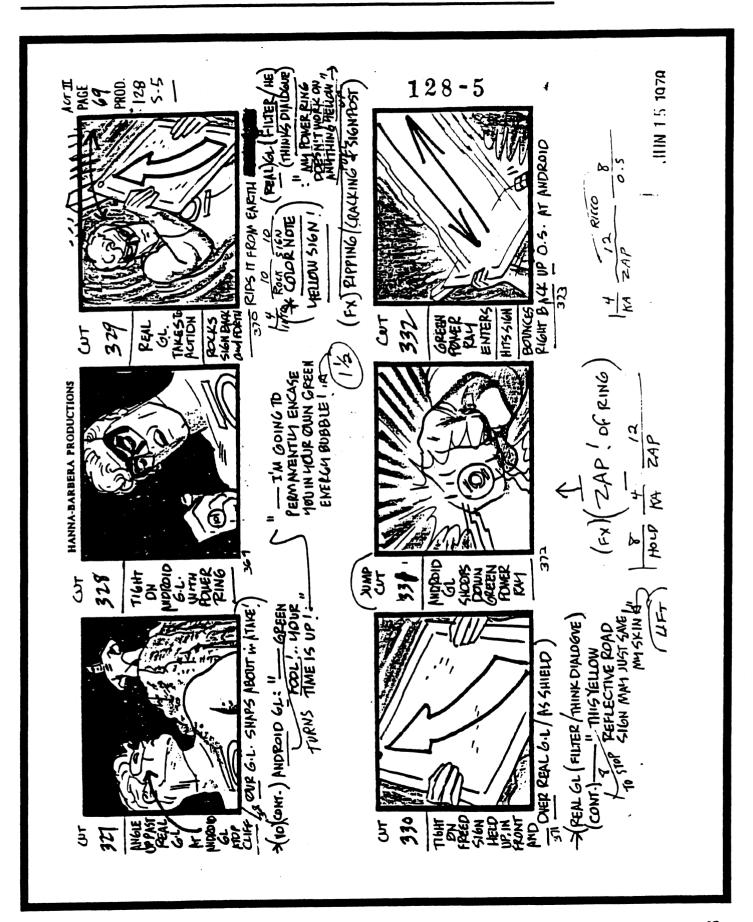


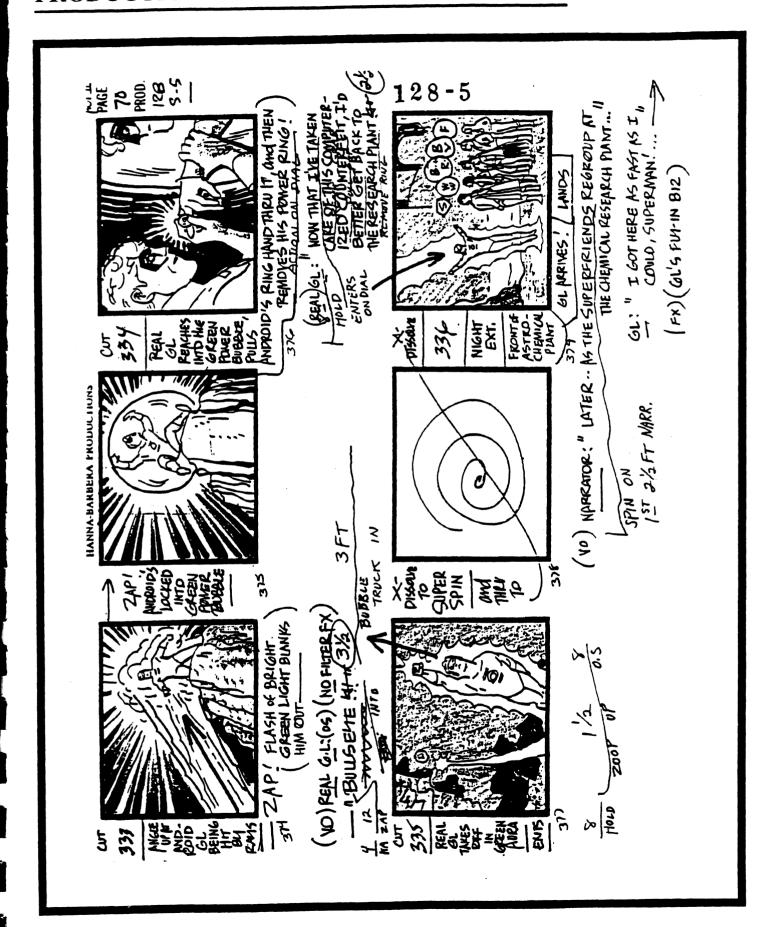
FOLLOWED BY A NOTHER WHALE AND HER CALF...



THEY SWIM PAST CAM AND OS...







GLOSSARY OF TERMS

BACKGROUND

the painting or rendering that is placed under cels during photography and over which animation takes place.

CAMERA SHAKE

a camera move that simulates an earthquake - like movement of the scene.

CLOSE UP

a scene in which the camera appears to be close to a subject.

COMMERCIAL

a television advertisement that is usually one minute or less in length.

CONTINUITY

an unbroken flow of events from one scene to another.

CUT

the end of one scene, followed by the beginning of the next scene.

CYCLE

a series of animated drawings or cels which can be photographed over and over to create the illsuion of continuing, repeated action.

DIAGONAL

a tilted pan background move or tilted camera angle.

CROSS-DISSOLVE

an optical or camera effect in which one scene gradually fades out at the same time that a second scene fades in. There is an apparent double exposure during the middle of the dissolve where the two scenes overlap.

FADE OUT

a scene that goes from full exposure to black towards the end. Most fades are short-- perhaps sixteen to twenty-four exposures.

FIELD

the area that the camera is photographing.

FIELD IN

a move of the camera closer to the image.

FLAT CARD

a painted background which has no texture and is of only one color.

FOOTAGE

a term used to describe the length of a film. It refers to the fact that animation is measured in feet of film.

FRAME (1)

A single picture of a motion

picture film.

(2) To compose a shot

INTERCUT

a closer shot of a scene used previously.

IRIS OUT

a special effect in which a series of masks containing circles of diminishing sizes obliterate the action.

LAYOUT

the physical mapping out of a scene including the background drawing, character animation key poses and camera instructions.

LIVE-ACTION

sequences of a film in which live actors or real objects are photographed.

GLOSSARY OF TERMS cont...

LONG SHOT

a scene in which the camera appears to be shooting from a distance, emphasing the location.

OBJECTIVE CAMERA

a method of shooting film in which the viewer is uninvolved.

PAN

- (1) A scene where the camera sweeps across a given area from side to side or up and down.
- (2) B background with more that one field.

PICTURE PLANE

an invisible plane through the characters in a scene, perpendicular to the camera FULL SHOT.

MASK

a device used to black off and prevent light from emitting from a specific area.

MEDIUM SHOT

a scene that is photographed from a medium distance so that the full figure of the subject fills the frame.

RIPPLE DISSOVLE

a variation of a cross-dissolve using a distotion glass to produce an underwater effect. It is used to denote a transition into the past or the future.

SEQUENCE

a series of scenes that make up a definite episode in a story.

SHOT

a live-action term refering to a scene

STOCK FOOTAGE

previously photographed films which are catalogued and placed in a library for use in subsequent films.

STORYBOARD

a sequence of drawings that serve as a visual script for a film.

SUBJECTIVE CAMERA

a method of shooting film in which the veiwer assumes a role.

TILT PAN

a variation of the pan shot in which the camera is tilted at an angle.

TRANSITION

the passage from one sequence to another denoting change of location, time, or both.

TRUCK

a movement of the camera toward or away from the scene

WIPE

an optical effect in which one scene supercedes another by using mattes.

ZIP PAN

a very fast pan used to indicate extreme speed. Also referred to as a "Swish-Pan" or "Blur-Pan".

ZOOM

a very fast truck out or truck in simulating extreme speed.

Bibleography

Canemaker, John. Winsor Mc Cay, His life and Art. cross river press, LTD. 1987

Culhane, Shamus. Animation from script to screen. St. Martinn's press, N.Y. 1988

Culhane, Shamus. Talking animals and other people. St. Martin's Press. N.Y. 1986

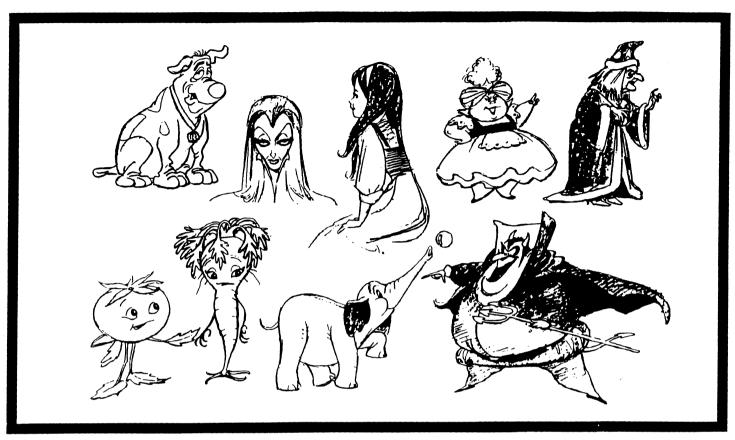
Finch, Christopher. The Art of Walt Disney. Walt Disney Productions, 1973

Richard Griffth, Arthur mayer. The Moves. Bonanza books, N.Y.1957

Laybourne, K. T. The Animation Book. General Publishing Co., LTD 1979

Martin, Leonard. of Mice and Magic. The New American Library, Inc 1980

Solomon, Charles. Enchanted Drawings: The History of Animation. Alfred A. Knoph, N.Y. 1989



Character designs by Bob Singer



Bob Singer is a veteran of thirty-seven years in the animation industry., having worked at many studios including Warner Brothers Cartoons, U.P.A. Pictures and Marvel Productions. In the course of twenty-six years at Hanna-Barbera Productions he headed the layout and character design departments and produced art for publicity, merchandising and cel-art for the studio stores, for whom he has made many personal appearances.

He has taught layout, character design and storyboard and has lectured at U.S.C. Film classes and various high schools in the Southern California area.

Bob has created storyboards for Warner Brothers, U.P.A. Pictures and was a storyboard director for Hanna-Barbera. He is currently enjoying his retirement in Mission Viejo, California.